CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION

BOARD ORDER NO. 6-00-18 WDID NO. 6B360344001

36-4A-0068

REVISED WASTE DISCHARGE REQUIREMENTS FOR

U.S. ARMY FORT IRWIN NATIONAL TRAINING CENTER; MAIN BASE CLASS III LANDFILL

San Bernardino County	

The California Regional Water Quality Control Board, Lahontan Region (Regional Board) finds:

1. <u>Discharger</u>

On April 20, 1999 Fort Irwin submitted a revised Joint Technical Document (JTD) package for the Fort Irwin Class III Landfill. For the purpose of this Regional Board Order (Order), the U.S. Department of the Army, Fort Irwin Training Center, is referred to as the "Discharger."

2. Landfill

The Fort Irwin Class III Landfill receives and stores waste. For the purposes of this Order, the Fort Irwin Class III Landfill is referred to as the "Landfill." An adjacent petroleum, oil, lubricant (POL) facility bioremediates petroleum contaminated soil and is referred to as the "Landfarm."

3. Order History

The Regional Board adopted Board Order No. 6-85-120 on October 10, 1985, which previously established Waste Discharge Requirements (WDRs) for the Landfill. Board Order No. 6-93-100 was adopted on September 9, 1993, and amended the WDRs to incorporate the requirements of Title 40, Code of Federal Regulations, Parts 257 and 258 (Subtitle D) as implemented in the State of California under State Water Resources Control Board (SWRCB) Resolution No. 93-62. Board Order No. 6-95-101 was adopted on September 14, 1995, which revised the WDRs to incorporate treatment and disposal requirements for POL contaminated soil from the Landfarm.

4. Reason for Action

The Regional Board is revising these WDRs to require the Discharger to achieve compliance with the revised requirements of Sections 20385, 20415 and 20420, Title 27, California Code of Regulations (CCR) which states the required monitoring program requirements. The Order requires submittal of an Engineering Feasibility Study and a Corrective Action Program (CAP) in accordance with Section 20430, Title 27, CCR to recommned an alternative to remediate an apparent release of volatile organic compounds (VOCs) to ground water.

This Order specifies requirements for a 25-acre Subtitle "D" lined expansion area, immediately south of the initial 38-acre landfill cell.

5. Landfill Location

The Landfill is located approximately one mile east of the cantonment area, on the Fort Irwin National Training Center, 35 miles northeast of the City of Barstow. The Landfill is contained in the USGS Fort Irwin Quadrangle in Sections 33 and 34, T14N, R3E; and Sections 3 and 4, T13N, R3E, SBB&M, as shown on Attachments "A", "B", and "C" which are made a part of this Order.

6. <u>Description of Landfill</u>

A total of 467-acres composes the parcel for the Fort Irwin existing and proposed future landfills. as shown on Attachment "B". Of the total 467-acres, there is an existing landfill with 38-acre, 7acre. and 18-acre unlined cells. An expansion area, currently lined, is approximately 25-acres. The expansion area may be used as a landfill, following completion of all permit approvals, including these revised WDRs. The existing 18-acre and 38-acre Landfill cells are unlined and allowed by the Solid Waste Facilities Permit to receive 100 tons per day of municipal waste. Based on the quantity of waste received per day, the Landfill is a Small landfill (less than 100 tons per day) as defined in Subtitle D. As such, Subtitle D requirements became effective for this Landfill on April 9, 1994. Regional Board staff have reviewed information submitted by the Discharger which illustrates the footprint of waste discharged as of April 9, 1994. The footprint documents the area of waste disposal, which is exempt from Subtitle D requirements for composite liners, and is shown on Attachment "B" of this Order as the "Existing Active Refuse Disposal Area". A load-checking program is implemented to prevent disposal of household hazardous wastes. The "Landfill Boundary" shown on Attachment "B" is the area permitted in the Solid Waste Facilities Permit and is approximately 63-acres of the total 467-acre parcel. The 38acre and 18-acre landfill cells were in place prior to Subtitle D requirements, and therefore have no liner installed under them. The new 25-acre landfill expansion area is also shown on Attachment "B", and is designed under Subtitle D requirements as well as Title 27, CCR. All new future expansion areas will be designed and operated to fully comply with Subtitle D requirements as well as Title 27, CCR.

7. Description of Expansion Area

The 25-acre expansion area is to be constructed in three 8.3-acre phases. These WDRs establishes requirements for the entire 25-acre expansion area although only the first 8.3-acre area is completed. The remaining two phases will be constructed as required. The expansion area was constructed by excavating to grade and roller compacting the sub-base. The subgrade material consisted of clayey sands to fine sands with calcium carbonate cementation. The subgrade material was compacted to a minimum of 95 percent compaction of the standard proctor at plus or minus two percent of optimum moisture content. Prior to placement of the geosynthetic liner, the subgrade material was drum rolled and all sharp and protruding rocks were picked and removed. A 30-mil high density polyethylene (HDPE) geomembrane was installed upon the smooth surface. A geosynthetic clay liner (GCL) was placed on top of the 30-mil HDPE. A single 80-mil HDPE was installed over the GCL. A lined leachate sump was constructed beneath the low point in the south-west corner. Approximately 18 inches of protective sand was placed over the liner.

The leachate lagoon consists of a double lined Landfill with a leachate collection recovery system, and is located south of the 25-acre expansion area. The lagoon consists of a 60-mil primary HDPE and a secondary 30-mil HDPE liner system. A four-inch thick concrete layer was poured over a four-inch sand layer that was placed on top of the primary liner. Along with the Expansion Area is the bailer facility. The bailer complex is intended to extend the life of the proposed

Landfill expansion. The bailer complex consists of a pre-engineered metal building with a tipping floor, a shallow pit that houses the bottom part of the feed conveyor, a conveyor that carries trash from the floor to a point above the bailer, and the bailer.

8. Adjacent Installation Restoration Program Sites

The existing 63-acre refuse disposal area is designated as Installation Restoration Program Site No. FTIR-001. Closure of Site FTIR-001 will be completed as part of landfill closure. The Discharger is conducting remedial investigation and closure activities at adjacent sites FTIR-002, 003, and 004 under the US Army's Environmental Site Restoration Program.

9. <u>Description of POL Treatment Operations</u>

a. POL Stockpile (7-acre underlying cell)

Since approximately 1983, the Discharger has stockpiled POL contaminated soil generated during training operations in a fenced area near the north boundary of the Landfill located on top of the 7-acre cell. The Discharger has proposed to in-situ bioremediate the stockpile and use the treated soil for landfill daily cover or dispose in another approved manner. The underlying 7-acre landfill cell will be closed along with the rest of the initial 63-acre landfill.

b. Temporary Soil Transfer Area

POL contaminated soil is currently sorted and characterized in the Temporary Soil Transfer Area located near Building 703. POL material is sorted by type (diesel, gasoline, anti-freeze, motor oil) and stored until a sufficient amount of material is available for transfer to the Landfarm. The Discharger plans to close this unit after a new unit is constructed adjacent to the existing Landfarm area. This Order includes a time schedule for submittal of a closure plan for the activities at the Temporary Soil Transfer Area.

c. POL Landfarm

Title 27, CCR requires that the treatment zone extend to no greater than five feet below the ground surface. The Discharger completed a pilot project in 1992 demonstrating that the treatment levels specified in this Order can be achieved with about three months of treatment by maintaining the correct moisture, nutrient, and oxygen levels. Heavy fraction petroleum compounds are more difficult to biodegrade. The Discharger has provided information to justify raising the soil treatment limits for heavier fraction compounds. The Landfarm is west of the 38-acre landfill cell and receives POL contaminated soil for bioremedial treatment. The Landfarm is a lined facility adjacent to the western boundary of the existing Landfill. The Landfarm is approximately 120 feet by 45 feet divided into two treatment cells with a capacity of treating about 7,000 cubic yards per year as shown on Attachment "C".

This Landfill may expand in size. Prior to expansion, the Discharger shall submit revised WDRs for a permit expansion. At that time, Board staff will review and possibly propose new WDRs for adoption by the Regional Board. If new WDRs are proposed for the POL Landfarm, then the Landfarm requirements contained in these WDRs may be rescinded through a WDR revision.

10. Sampling and Analysis Plan

The Discharger has submitted various Sampling and Analysis Plans (SAP) for ground water and soil-gas monitoring at the Landfill, soil characterization at the Temporary Transfer Area and soil sampling at the Landfarm. The Monitoring and Reporting Program attached to this Order requests the Discharger to submit a revised and updated SAP.

11. Authorized Disposal Sites

The footprint of waste disposal sites shown in Attachment "B", labeled "initial landfill cell (38-acre), 18-acre expansion area, and the 25-acre expansion area are the only authorized disposal site for non-hazardous solid waste or municipal solid waste. After a new soil transfer site is constructed and added to this permit as part of the Landfarm, the Landfarm will be the only authorized disposal point for POL contaminated soil. Once POL soil treatment is complete as defined in the Discharge Specification of this Order, the soil may be taken to the Landfill for use as interim cover material or another approved means.

12. Waste Classification

The Landfill receives waste derived from the Fort Irwin National Training Center community. The waste is defined in Sections 20220 and 20230 of Title 27, CCR, as non-hazardous solid and inert waste, respectively, and is defined as municipal waste in Subtitle D. The waste received at the Landfarm for treatment is classified as solid designated waste as defined in Section 20210 of Title 27 and non-hazardous solid waste when the treatment limits specified in this Order are met.

13. Waste Management Unit Classification

Pursuant to Section 20260 of Title 27, CCR, the Landfill is classified as a Class III waste management unit. Pursuant to Section 20250 of Title 27, CCR, the Landfarm is classified as a Class II Land Treatment Unit.

14. Subtitle D Compliance Status

Board Order Amendment No. 6-93-100 required the submittal of several items in order to comply with Subtitle D for the Landfill. The Discharger has submitted complete information regarding the acceptance of liquids, the existing waste footprint, the distance from the Landfill to the nearest drinking water source, and whether the Landfill is located in a 100 year floodplain or a wetlands. These items were submitted to fulfill the submittal requirements of Subtitle D as implemented by SWRCB Resolution No. 93-62.

15. Water Quality Protection Standard

The Water Quality Protection Standard (WQPS) consists of constituents of concern (including monitoring parameters), concentration limits, monitoring points, and the point of compliance. The standard applies over the active life of the Landfill, closure and post-closure maintenance period, and the compliance period. The constituents of concern, monitoring points, and point of compliance are described in the Monitoring and Reporting Program, which is attached to and made a part of this Order. The Discharger has submitted a WQPS in the April 1999 JTD document.

16. Statistical Methods

Statistical analysis of monitoring data is necessary for the earliest possible detection of a significant release of waste from the Landfill. Sections 20420, Title 27, CCR, regulations require statistical data analysis. The attached Monitoring and Reporting Program includes general methods for statistical data analysis.

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17. <u>Detection Monitoring</u>

Pursuant to Section 20385, Title 27, CCR, the Discharger has been conducting a Detection Monitoring Program (DMP) for the Landfill. The current DMP has been designed to monitor the ground water for evidence of a release. The Discharger is conducting an evaluation of the existing ground water and unsaturated zone monitoring system to determine if additional monitoring points are necessary to comply with Title 27, CCR. The existing detection monitoring system is described in the attached Monitoring and Reporting Program.

18. Evaluation Monitoring

An Evaluation Monitoring Program (EMP) will be required, pursuant to Section 20425, Title 27, CCR, to evaluate evidence of a release if detection monitoring and/or verification procedures indicate evidence of a release.

19. Corrective Action

A CAP to remediate released wastes from the Landfill will be required pursuant to Section 20430, Title 27, CCR, should results of an EMP warrant a CAP.

20. Site Geology

The Landfill is situated on alluvial fan deposits primarily composed of sand and gravel deposited by ephemeral braided streams from the adjacent mountains. Alluvial fan deposits are characterized by buried stream channels and heterogeneous geology. Course and fine sand and gravel deposits are concentrated near the top of the fan and in active stream channels, while silt and clay deposits occur more frequently near the valley floor. The Landfill is underlain by between 60 and 175 feet of Quaternary alluvium. Bedrock consisting of fractured and weathered metamorphic and granitic rocks is encountered at depths of between 60 and 140 feet bgs.

21. Site Hydrogeology

Depth to ground water ranges from approximately 125 to 200 feet below ground surface. Ground water beneath the site generally flows to the northwest, however locally under the Landfill; ground water flow is to the north. There is the possibility that ground water elevations may be locally affected by the presence of a fault or a bedrock valley. Ground water from active wells in the Langford Basin generally have a sodium sulfate bicarbonate or sodium bicarbonate character and a total dissolved solids concentration between 400 and 600 milligrams per liter. Mineral quality of basin waters is high in fluoride and iron. There are numerous monitoring wells within the 40-acre active disposal area of the Landfill and adjacent inactive abandoned landfill sites. Some of the monitoring wells have had sporadic detection of VOCs during prior sampling periods.

A ground water anomaly exists near monitoring wells MW-5 and MW-7. As addressed in the JTD by Montgomery Watson, the "noticeable higher elevations of ground water surface in wells MW-5 and MW-7 might be a result of the northwestern extension of the lines of structural change observed during the geophysical investigation. The lines of structural change may indicate an inactive subsurface fault or faults that locally influence ground water elevation and direction of ground water flow."

22. Site Surface Hydrology and Storm Water Runoff

There are no perennial bodies of surface water in the vicinity of the Landfill. Garlic Springs are located approximately two miles south of the Landfill. An ephemeral stream crosses site FTIR-004 west of the Landfill. Surface water from storm events in the Irwin Basin flows south through this streambed into Langford Dry Lake, approximately three miles southeast of the Landfill. Surface water has been diverted from the Landfill around the ephemeral stream. Storm water runoff from the Landfill is channeled into the ephemeral stream. The Landfill is covered under the Base-wide Notice of Applicability for the Statewide General Storm Water Permit (WDID No. 6B36S005232).

23. Site Topography

The Landfill is located in an area of gentle slope with elevations ranging from 2,380 feet above Mean Sea Level (MSL) at the southwest boundary, to 2,500 feet about MSL at the east boundary. The Landfill average elevation is approximately 100 feet above the elevation of the cantonment area.

24. Climatology

The climate is characterized by infrequent rainfall, large seasonal and diurnal temperature ranges, low relative humidity, gusty winds, and high percentage of sunshine. The average annual precipitation is approximately four inches. The evapotranspiration is approximately 90 inches annually.

25. Land Uses

The land uses at and surrounding the Landfill consists of the following:

- a. open desert land;
- b. facilities of Fort Irwin National Training Center; and
- c. the main base domestic sewage treatment plant.

26. Closure and Post-Closure Maintenance

This Order requires that the Discharger review the Preliminary Closure and Post-Closure Maintenance Plans (PCPCMPs) annually to determine if significant changes in the operation of the Landfill or Landfarm warrant an update of the PCPCMP.

a. Landfill

The Discharger previously has submitted a PCPCMP for the Landfill, dated June 1994, modified by letter dated February 8, 1995 and approved by Regional Board staff on March 9, 1995. The PCPCMP describes the prescriptive closure procedures as required by Chapter 15 and Title 27, CCR. The Landfill will be incrementally closed. A partial closure plan will be prepared and submitted for each partial closure area. Final cover material (for the 18-acre, 7-acre, and 38-acre sites) will consist of a minimum of four feet of soil above the refuse. The lower two feet, or a foundation layer, will be on-site soils sufficiently compacted to provide support of the overlying barrier layer. The middle one foot, or barrier layer, will be either imported clay, amended on-site soils, or compacted on-site soils with a permeability of 1 x 10⁻⁶ cm/sec or less. The top one-foot will be selected on-site soils suitable for supporting good vegetation of native species. Final cover for the 25-acre expansion areas will consist of an 18-inch soil layer overlain by a 6-inch sand gas venting layer. A 40-mil linear low density polyethylene will be placed on top of the 18-inch soil layer. An erosion layer will consist of 12-inches of top soil.

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This Order provides Regional Board approval of the PCPCMP. This Order requires the Discharger to review the PCPCMP annually to determine if significant changes in the operation of the Landfill warrant an update of the PCPCMP. A partial Final CPCMP will be prepared for each partial closure area within the total landfill area (467-acre parcel). Board staff has recommended the Discharger to evaluate use of a monolithic cover provided it is shown to be as protective of the prescriptive standard because of concerns with clay shrinkage and long term maintenance of the 18-inch soil over HDPE. Board staff has requested that the Discharger evaluate the different closure options at the time of Final CPCMP submittal.

b. <u>Landfarm</u>

The PCPCMP for this unit submitted as part of a Report of Waste Discharge indicates the unit will be clean closed at the end of operations.

c. Subtitle D Expansion

The Discharger has circulated an Amendment to the Environmental Assessment/Initial Environmental Study for the Landfill, dated April 1999, to comply with the California Environmental Quality Act (CEQA). The Discharger has indicated in the findings, that no effects on ground water quantity or changes in flow direction in the Irwin Basin are anticipated as a result of the Landfill operations. All future disposal units with the Landfill will be installed with a composite liner and a leachate collection system, and ground water quality impacts will be minimized to a level of insignificance. The monitoring program will continue throughout the life of the Landfill and during the post closure period to ensure no release occurs form the Landfill.

27. Financial Assurance

a. Landfill Closure

The Discharger has provided assurances to the California Integrated Waste Management Board (CIWMB) dated May 27, 1993, that closure funds will be sought in accordance with federal regulations. The Regional Board can access the closure financial assurance provided to the CIWMB. This meets the requirements of Sections 22247 and 22245, Title 27, CCR for financial assurance. This Order requires the Discharger to demonstrate in an annual report that the amount of financial assurance is adequate, or increase the amount of financial assurance.

b. Landfarm Closure

The Discharger has provided assurances to the Regional Board, that closure funds will be sought in accordance with federal regulations. This financial assurance for site closure meets Title 27, CCR requirements.

c. Reasonable Foreseeable Releases

The Discharger has provided assurances to the Regional Board, dated August 22, 1995, that funds for correcting reasonably foreseeable releases, as required by Chapter 15, will be sought in accordance with federal regulations.

28. Receiving Waters

The potential receiving waters are the ground waters of the Langford Valley Ground Water Basin (Department of Water Resources Hydrologic Unit No. 6-36).

29. Lahontan Basin Plan

The Regional Board adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan) which became effective March 31, 1995. This Order implements the Basin Plan.

30. Beneficial Ground Water Uses

The present and probable beneficial uses of the ground waters of the Langford Valley Ground Water Basin as set forth and defined in the Basin Plan are:

- a. municipal and domestic supply;
- b. freshwater replenishment;
- c. agricultural supply; and
- d. industrial service supply.

31. California Environmental Quality Act

a. Landfill

These WDRs govern an existing Landfill that the Discharger is currently operating and as such is exempt from the requirements of the CEQA (Public Resources Code Section 21000, et seq.) in accordance with Section 15301 of the CEQA Guidelines.

b. <u>Landfarm and Subtitle D Expansion Area</u>

The Discharger has circulated an Environmental Assessment/Initial Study for the Landfarm, dated November 1994, through the State Clearinghouse (SCH No. 94124019) to comply with the CEQA and National Environmental Policy Act (NEPA). The Discharger has prepared a Finding of No Significant Impact pursuant to NEPA dated August 11, 1995, for the new Landfarm and Subtitle D Expansion Area which indicates there will be no adverse water quality effects on the environment provided the Landfill is operated as proposed.

32. Notification of Interested Parties

The Regional Board has notified the Discharger and all known interested agencies and persons of its intent to adopt revised WDRs for the project.

33 Consideration of Interested Parties

The Regional Board, in a public meeting, will hear and consider all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS:

Unless otherwise noted, the requirements in this Order apply to both the Landfill and Landfarm. Requirements that apply only to the Landfill are indicated as Landfill; and Landfarm are indicated as Landfarm.

A. Receiving Water Limitations for both Landfill and Landfarm

The discharge of waste shall not cause the presence of the following substances or conditions in ground waters of the Langford Valley Ground Water Basin:

- 1. any perceptible color, odor, taste, or foaming;
- 2. any presence of toxic substances in concentrations that individually, collectively, or cumulatively cause detrimental physiological response in humans, plants, animals, or aquatic life; and
- 3. the presence of constituents of concern in concentrations that exceed background levels.

B. Landfarm

- 1. Only soil contaminated with POL products related constituents should be accepted for treatment at the Landfarm.
- 2. Contaminated soil accepted for treatment at the Landfarm shall not contain concentrations of metals above limits listed in Section 66261 (a)(2)(A), Title 22, CCR (Title 22) as determined using the Waste Extraction Test.

- 3. Contaminated soil accepted for treatment at the Landfarm shall not contain free liquids as determined using the paint filter test, EPA Method 9095.
- 4. No hazardous waste as defined in Section 66261.3 of Title 22 and Section 2521 of Chapter 15 shall be accepted for treatment at the Landfarm.
- 5. Soil shall not be accepted at the Landfarm in excess of the design capacity of the unit for achieving treatment.

C. Landfill

Soil in excess of the following limits not to be disposed of at the Landfill:

 To determine acceptable residual levels of soil contamination limits for total petroleum hydrocarbons, measured as gasoline and diesel, the method of the SWRCB Leaking Underground Fuel Tank Manual was used.

Parameter	Concentration (mg/kg)
total petroleum hydrocarbons	
measured as gasoline	100
total petroleum hydrocarbons	
measured as diesel	10,000

2. The water quality objectives for benzene toluene ethylbenzene xylene (BTEX) constituents as defined in the Basin Plan is the background water quality, which is the laboratory method detection limit for each constituent in solution. The soil disposal limits have been determined by multiplying the water quality objective in solution by 100 to simulate the factor of safety provided to water quality by the natural attenuation processes at the Landfill.

Parameter	Concentration (mg/kg)
benzene	0.1
toluene	0.1
total xylenes	0.1
ethylbenzene	0.1

II. REQUIREMENTS AND PROHIBITIONS

A. General - Landfill and Landfarm

- 1. The discharge shall not cause a pollution as defined in Section 13050 of the California Water Code, or a threatened pollution.
- 2. The discharge shall not cause a nuisance as defined in Section 13050 of the California Water Code.
- 3. The discharge of solid waste, leachate, or any other deleterious material to the ground waters of the Langford Valley Ground Water Basin is prohibited.

- 4. The discharge of waste except to the authorized disposal sites is prohibited.
- 5. The disposal sites shall be protected from inundation, washout, or erosion of wastes and erosion of covering materials resulting from a storm or a flood having recurrence interval of once in 100 years.
- 6. Surface drainage from tributary areas and internal site drainage from surface or subsurface sources shall not contact or percolate through solid wastes discharged at the site.
- 7. The exterior surfaces of the disposal sites shall be limited to a minimal amount. A "minimal" amount is defined as that amount which will result in runoff.
- 8. Water used for dust control during disposal site operations at the Landfill or moisture application at the Landfarm shall be limited to a minimal amount. A "minimal amount" is defined as that amount which will not result in runoff or leaching of wastes.
- 9. All water used for dust control shall not contain detected concentrations of VOCs. Purge water that contains minor concentrations of VOCs, may be used as dust control, after Regional Board staff approval, on a case-by-case issue.
- 10. Wastes other than inert wastes shall not be placed in ponded water from any source whatsoever.
- 11. The discharge of wastes shall be in a manner to maintain a five-foot soil separation between the wastes and the seasonal high ground water elevation.
- 12. The Discharger shall remove and relocate any waste, which is or has been discharged at the disposal sites in violation of these requirements. The waste shall be relocated to a site, which is permitted to receive such wastes. For the Landfill, all removal and relocation projects shall be coordinated with regulatory agencies including the County of San Bernardino Department of Environmental Health Services.
- 13. At closure, all facilities must be closed in accordance with a Final CPCMP approved by the Regional Board.
- 14. At any given time, the concentration limit for each constituent of concern shall be equal to the background value of that constituent.
- 15. The concentration limit for each constituent of concern shall not be exceeded.
- The Discharger shall submit an evaluation of the monolithic cover verses the prescriptive cover standard, in the Final CPCMP.

B. Landfill

- 1. The Discharger shall implement a periodic load checking program approved by the Regional Board and the CIWMB as required in Section 20220, Title 27, CCR.
- 2. No hazardous or designated waste may be discharged to the Landfill as defined in Chapter 15, Title 23, CCR Section 2521 and Section 20210, Title 27, CCR, respectively.
- 3. Waste discharged to the Landfill shall have a solid content of 50 percent or greater.
- 4. During periods of precipitation, the Landfill disposal activity shall be confined to the smallest area possible based on the anticipated quantity of wastes and operation procedures.

C. Landfarm

- 1. The Landfarm shall be operated in a manner described in the previously submitted Operations Plan or as modified.
- 2. There shall be no storage of POL contaminated soil at locations other than the locations as approved by Board staff, as described in this Order, Finding No. 9.
- 3. Contaminants shall not be allowed to migrate vertically five feet below the synthetic liner as required in Section 20250, Title 27, CCR. The Discharger shall cease discharge to the Landfarm if contaminants are detected at five feet below the synthetic liner. Notification shall be submitted to the Regional Board immediately of such a determination.
- 4. The POL waste shall be completely degraded, transformed, or immobilized in the Landfarm as required in Section 20250, Title 27, CCR.
- 5. The Landfarm shall be operated in compliance with Sections 20310 (Construction), 20320 (Containment), 20365 (Drainage Control), 20370 and 21750 (Seismic Design), and 20377 Special Land Treatment Requirements) of Title 27, CCR.
- The Discharger shall implement an approved SAP for the Landfarm to comply with Section 20435, Title 27, CCR (Unsaturated Zone Monitoring). As specified in the Monitoring and Reporting Program, the Discharger shall submit SAP modifications to the Regional Board.
- 7. No hazardous wastes shall be discharged at the Landfarm as defined in Chapter 15, Title 23, CCR Sections 2521.

D. <u>Detection Monitoring Program - Landfill and Landfarm</u>

The Discharger shall implement a DMP as required in Section 20385, Title 27, CCR.

E. Evaluation Monitoring Program - Landfill and Landfarm

The Discharger shall establish an EMP whenever there is statistically significant evidence of a release from the Landfill as required in Section 20385, Title 27, CCR.

F. Corrective Action Program - Landfill and Landfarm

The Discharger shall institute a CAP when required pursuant to Section 20385, Title 27, CCR.

III. DATA ANALYSIS - Landfill and Landfarm

A. Statistical Analysis

Statistical analysis of ground water and unsaturated zone DMP data shall be conducted. Analysis shall be conducted in accordance with statistical methods detailed in the attached Monitoring and Reporting Program.

B. Nonstatistical Analysis

The Discharger shall determine whether there is significant physical evidence of a release from the Landfill. Significant physical evidence may include unexplained volumetric changes in the Landfill, unexplained stress in biological communities, unexplained changes in soil characteristics, visible signs of leachate migration, and unexplained water table mounding beneath or adjacent to the Landfill, or any other change in the environment reasonably expected resulting from a release at the Landfill.

C. Verification Procedures

- 1. The Discharger shall immediately initiate verification procedures as specified below whenever there is a determination by the Discharger or Executive Officer that there is statistical or non-statistical evidence of a release. If the Discharger declines the opportunity to conduct verification procedures, the Discharger shall submit a technical report as described below under the heading <u>Technical Report Without Verification Procedures</u>.
- 2. The verification procedure shall only be performed for the constituent(s) that has shown evidence of a release, and shall be performed for these monitoring points at which a release is indicated.
- 3. The Discharger shall either conduct a composite retest using data from the initial sampling event with all data obtained from the resampling event of shall conduct a discrete retest in which only data obtained from the resampling event shall be analyzed in order to verify evidence of a release.
- 4. The Discharger shall report to the Regional Board by certified mail the results of the verification procedure, as well as all concentration data collected for use in the retest within seven days of the last laboratory analysis.

- 5. The Discharger shall determine, within 45 days after completion of sampling, whether there is statistically significant evidence of a release from the Landfill at each monitoring point. If there is statistically significant evident of a release, the Discharger shall immediately notify the Regional Board by certified mail. The Executive Officer may make an independent finding that there is statistical evidence of a release.
- 6. If the Discharger or the Executive Officer verifies evidence of a release, the Discharger is required to submit, within 90 days of a determination that there is or was a release, in a technical report pursuant to Section 13267(b) of the California Water Code. The report shall propose an evaluation monitoring **OR** make a demonstration to the Regional Board that there is a source other than the Landfill that caused evidence of a release.

D. <u>Technical Report Without Verification Procedures</u>

If the Discharger chooses not to initiate verification procedures, a technical report shall be submitted pursuant to Section 13267(b) of the California Water Code. The report shall propose an EMP, **OR**, attempt to demonstrate that the release did not originate from the Landfill.

IV. PROVISIONS

A. Rescission of Waste Discharge Requirements

Board Order No. 6-95-101 is hereby rescinded.

B. Standard Provisions - Landfill and Landfarm

The Discharger shall comply with the "Standard Provisions for Waste Discharge Requirements", dated September 1, 1994, in Attachment "D", which is made part of this Order.

- C. Monitoring and Reporting Landfill and Landfarm
 - Pursuant to the California Water Code Section 13267(b), the Discharger shall comply with the attached Monitoring and Reporting Program as specified by the Executive Officer.
 - 2. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached and made a part of the Monitoring and Reporting Program.

D. Closure and Post-Closure Monitoring

1. Landfill

The CPCMP shall be updated if there is a substantial change in operations. A Final CPCMP shall be submitted at least 180 days prior to beginning any partial or final closure activities or at least 120 days prior to discontinuing the use of the site

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for waste treatment, storage or disposal, whichever is greater. The CIWMB, pursuant to Title 27, CCR, requires the submittal of a Final CPCMP a minimum of two years prior to closure. Information shall be submitted annually indicating conformance with the existing operations.

2. Landfarm

The CPCMP shall be updated if there is a substantial change in operations. A Final CPCMP shall be submitted at least 180 days prior to beginning any partial or final closure activities or at least 120 days prior to discontinuing the use of the site for waste treatment, storage or disposal, whichever is greater. Information shall be submitted annually indicating conformance with the existing operations.

E. Operations Plan - Landfill and Landfarm

The Discharger shall submit to the Regional Board any proposed modifications to the previously submitted preliminary Design Report and Operations Plan for both facilities.

F. Financial Assurance - Landfill and Landfarm

As provided in the Monitoring and Reporting Program, the Discharger shall provide information that adequate financial assurance has been provided for closure and for potential releases. Evidence shall include the total amount of money available in the fund developed by the Discharger. The Discharger shall either provide evidence that the amount of financial assurance is still adequate or increase the amount of financial assurance by the appropriate amount. An increase may be necessary due to inflation, a change in regulatory requirements, a change in the approved closure plan, or unforeseen events.

G. Modifications to the Landfill

If the Discharger intends to expand the capacity of the Landfill, a report shall be filed no later than 90 days after the total quantity of waste discharged at this site equals 75 percent of the reported capacity of the site. The report shall contain a detailed plan for site expansion. This plan shall include, but is not limited to, a design and construction time schedule and other steps needed to provide additional capacity. If site expansion is not undertaken prior to the site reaching the reported capacity, the total quantity discharged shall be limited to the reported capacity.

V. TIME SCHEDULE

A. Submittal Periods

Semi-annual monitoring reports shall be submitted to the Regional Board on the <u>30th day</u> of the month following the semester.

B. Annual Report

On or before <u>April 1, 2001</u>, and before <u>April 1</u> every year thereafter the Discharger shall submit an annual report to the Regional Board. This report shall include a data summary and graphical and tubular data representations of the items described in the Monitoring and Reporting Program

C. Operations Plan

On or before May 15, 2000, the Discharger shall submit a complete Natural Disaster Plan, and Operations Plan pursuant to Section 21760, Title 27, CCR.

D. POL Temporary Soil Transfer Area

By <u>November 30, 2000</u> the Discharger shall submit a closure plan and time schedule for completing site closure activities of this site.

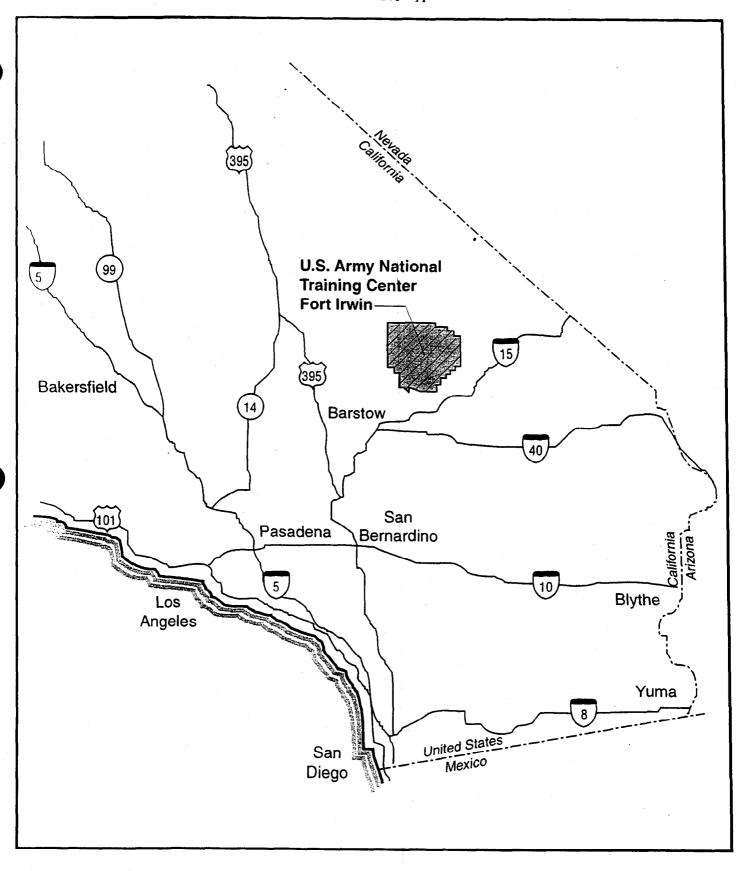
I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by California Regional Water Quality Control Board, Lahontan Region, on March 9, 2000.

HAROLD J. SINGER EXECUTIVE OFFICER

Attachments:

- A. Location Map
- B. Footprint of Waste (Landfill)
- C. Site Map Landfarm
- D. Standard Provisions for Waste Discharge Requirements

3/2000 FTIRWNLF-WDR



Regional Map Figure 1-1

ATTACHMENT "B"

